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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	A Tutorial Approach to the Renormalization Group and the Smooth Feshbach Map -- Local States of Free Bose Fields -- to Representations of the Canonical Commutation and Anticommutation Relations -- Mathematical Theory of the Wigner-Weisskopf Atom -- Non-Relativistic Matter and Quantized Radiation -- Dilute, Trapped Bose Gases and Bose-Einstein Condensation -- Perturbation Theory for QED Calculations of High-Z Few-electron Atoms -- The Relativistic Electron-Positron Field: Hartree-Fock Approximation and Fixed Electron Number.
Sommario/riassunto	A mathematically consistent formulation of relativistic quantum electrodynamics (QED) has still to be found. Nevertheless, there are several simplified effective models that successfully describe many body quantum systems and the interaction of radiation with matter. Large Coulomb Systems explores a selection of mathematical topics inspired by QED. It comprises selected, expanded and edited lectures given by international experts at a topical summer school and is intended as a high-level introduction for graduate students, postdocs and nonspecialists from related fields.

